

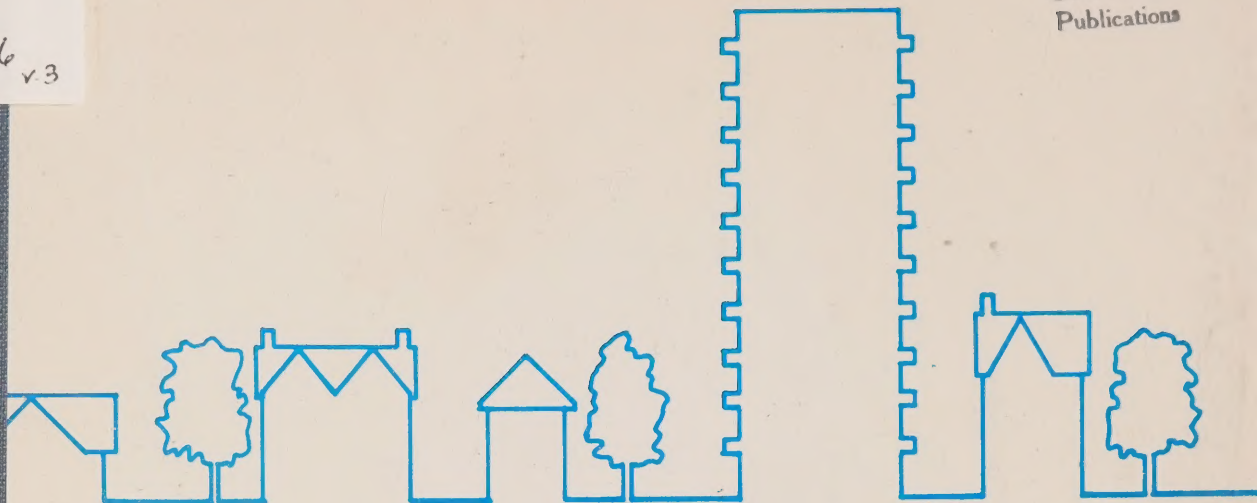
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# STUDY OF RESIDENTIAL INTENSIFICATION AND RENTAL HOUSING CONSERVATION

## PART 3 : RESIDENTIAL INTENSIFICATION AND FUTURE HOUSING NEEDS

### 3.1 : PHYSICAL POTENTIAL

PREPARED FOR  
THE ONTARIO MINISTRY OF MUNICIPAL AFFAIRS AND HOUSING  
AND THE ASSOCIATION OF MUNICIPALITIES OF ONTARIO

BY  
KLEIN & SEARS  
ENVIRONICS RESEARCH GROUP  
CLAYTON RESEARCH ASSOCIATES  
LEWINBERG CONSULTANTS  
WALKER, POOLE, MILLIGAN

MARCH 1983

# VOLUME 3







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NOTE:

This is a consultants' report. Any statements or opinions expressed herein are those of the writers or of persons quoted and, unless otherwise noted, are not necessarily endorsed by the Ministry of Municipal Affairs & Housing, Government of Ontario, or the Association of Municipalities of Ontario.





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## FOREWORD

This study was commissioned jointly by the Ontario Ministry of Municipal Affairs and Housing and the Association of Municipalities of Ontario. Funding for the study was provided by the Ontario Ministry of Municipal Affairs and Housing through the Housing Renovation and Energy Conservation Unit of the Community Housing Wing. The Ministry's chief representative on the study was Mr. George Przybylowski of the Housing Renovation and Energy Conservation Unit. In this capacity, Mr. Przybylowski was the prime client contact throughout the study process and the consultants wish to express their gratitude to him for his considerable personal commitment to this study and the many creative and useful suggestions he made during the course of the investigations.

The findings, conclusions and recommendations contained in the various volumes of the study report are those of the consultants as are any factual errors they may contain. The report does not constitute Ontario Government or A.M.O. policy but is a report to these two organizations for their consideration.

Peter G. McInnis  
Study Director





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UNIT 10: THE PHYSICAL POTENTIAL FOR ECONOMIC GROWTH

10.1 THE PHYSICAL POTENTIAL FOR ECONOMIC GROWTH

10.1.1 THE PHYSICAL POTENTIAL FOR ECONOMIC GROWTH

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10.2 THE PHYSICAL POTENTIAL FOR ECONOMIC GROWTH

10.2.1 THE PHYSICAL POTENTIAL FOR ECONOMIC GROWTH



## GENERAL INTRODUCTION

This document forms one volume of an eleven volume study report commissioned jointly by the Ontario Ministry of Municipal Affairs and Housing and the Association of Municipalities of Ontario (A.M.O.) in July, 1982. The prime objectives of the study were:

1. To examine the opportunities and constraints that exist for meeting some of the future additional housing needs in Ontario during the 1980's and 1990's through the intensification of existing residential neighbourhoods.
2. To examine some of the major forces at work that have and could threaten the conservation of the existing stock of rental housing and the tenants that occupy this stock.

These objectives were formulated in response to concerns on the part of the Ministry and A.M.O. regarding recent and emerging trends in housing and urban development and population growth and change in Ontario.

It is safe to assume that there will continue to be a demand for more rental and ownership housing units in Ontario during the 1980's and 1990's due to both an absolute increase in population and an increase in the number of households. However, there is growing evidence that this demand could be different in nature than during the last decade. While demand will continue to be focused in urban areas, there will likely be increasing pressure for inner city housing particularly in the larger urban centres such as Toronto, Ottawa and Hamilton. Also, households are getting smaller and older; and more people are beginning to accept the prospect of never being able to afford to own a home. These trends suggest that there will be an increasing demand for smaller dwellings. While consumer preference information may not support this, the general state of the economy and the future affordability of housing may dictate these demands.

The Government of Ontario and the Association of Municipalities of Ontario are concerned about how these additional and somewhat different housing needs of the 80's and 90's will be met, particularly in light of the downturn in the construction of new private rental housing; the economic prospects for the 80's and 90's and the likely restraints on public expenditures related to new facilities and services and socially assisted housing; and the increasing difficulty of providing new housing through large scale redevelopment and/or a further expansion outwards of Ontario's urban fabric.

There are two major approaches to creating additional housing: 1) building new and 2) making more efficient (intensive) use of the housing stock that currently exists. This study is aimed primarily at the latter and specifically at the potential for meeting some of the future housing needs in

the Province through the conversion of the existing stock of some 1,200,000 grade-related owner occupied dwellings in the Province. The extent to which this study is concerned with new housing was limited to the opportunities that might exist for small scale residential infill in residential neighbourhoods.

In addition to being concerned about meeting additional housing needs, the Ministry and A.M.O. were concerned about conserving the existing rental stock in a safe and livable condition for at least the same number of households as it currently accommodates. While this aging/conservation issue is by no means a new one, the nature of the issue will likely be quite different in the future. Until the late 1950's, the vast majority of housing in the Province was grade-related and owner occupied, and the conservation of these types of dwellings usually happened as a matter of course without much concern or assistance on the part of governments. In the last 30 years, however, the housing stock profile has changed dramatically with the advent of the high-rise apartment building. Rental apartments in multiple unit buildings form a much larger proportion of the stock than ever before. Approximately two-thirds of the over one million rental housing units in Ontario are located in high-rise or low-rise/walk-up multiple unit apartment buildings. Forty percent or 434,000 of the total rental units are in high-rise buildings. The conservation of the apartment rental stock has never been a serious issue in the past because of the relative newness of this stock. However, as these buildings age during the 80's and 90's (many are already 20 years old), serious attention will have to be given to the efforts that will be required to maintain these units in a safe and livable condition and within the economic reach of a large majority of the population. Therefore, the second objective of this study was in part, to examine the type of building repairs and improvements (and their associated costs) that will be required to conserve the Province's stock of some 434,000 high-rise rental apartments over the next 20 years.

A second rental housing conservation concern of the Ministry and A.M.O. had to do with the perceived loss of low-income rental accommodation that has traditionally been available in the form of rooms and apartments in grade-related dwellings in older neighbourhoods. Specifically, the study was to examine the extent of the loss of this type of housing due to demolition and deconversion resulting from the gentrification of these dwellings and the impact these losses have had on tenants.

The investigations were carried out by a series of five individual consultants working under the direction of a sixth consultant retained to coordinate and direct the study investigations. The work of each consultant was monitored and reviewed by a core study group made up of the five consultants, the study director and representatives of MOMAH and AMO.



### Core Study Group

Study Director: Peter McInnis  
Klein & Sears Research and Planning Limited

Consultants: Michael Adams  
Environics Research Group

Jack Klein  
Klein & Sears, Architects

Greg Lampert  
Clayton Research Associates

Frank Lewinberg  
Lewinberg Consultants

Peter Milligan  
Walker, Poole, Milligan

Ministry  
Representatives Sue Corke  
Gary McAllister  
George Przybylowski

A.M.O.  
Representatives: Mayor W. McLean Town of Ajax

Gwyn Simmons City of Ottawa Non-Profit Housing  
Corporation

Special Assistant  
To Core Group: Betty Kaser

While the consultants' work on this study began formally at the beginning of July, 1982, some considerable effort was spent in advance of this start-up by a steering committee of Ministry and AMO representatives in developing terms of reference and a work plan with the Study Director that reflected the findings of an extensive and detailed review of the literature pertaining to the issues in question. This literature review was carried out by David Hulchanski for the Ministry during April and May of 1982 and has been published under separate cover. The prime purpose of this review was to identify the extent to which the issues in question had already been considered and the findings and conclusions that had been reached in order that the consultants' work could be focussed on those issues about which there is limited knowledge or understanding. Also, this review provided a valuable basis for establishing certain propositions to be tested in the study.

The investigations, particularly those relating to Objective #1, were carried out on a case study area basis in the municipalities of Toronto, North York, Hamilton, Kingston, Woodstock and Ottawa with special input from municipal officials in Thunder Bay. These municipalities were selected to reflect the fact that many of the issues under investigation were more associated with larger urban areas as well as to provide, at the same time, a range of sizes of municipalities for comparative purposes.

The overall study report is organized into 11 separate volumes. These 11 volumes follow the 5 part organization of the findings, conclusions and recommendations of the study investigations as indicated below:

PART #	TITLE (Prime Consultants)	VOLUME #
1	Summary of Findings And Recommendations (Klein & Sears)	1
2	Economic And Demographic Trends for the 80's and 90's (Clayton Research Associates)	2
3	Residential Intensification And Future Housing Needs	
	3.1 Physical Potential (Clayton Research Associates)	3
	3.2 Economic Issues (Klein & Sears and Clayton Research Associates)	4
	3.3 The Supply Process (Environics Research Group and Clayton Research Associates)	5
	3.4 Tenant Demand (Environics Research Group)	6
	3.5 Neighbourhood Impact And Resistance (Environics Research Group and Lewinberg Consultants)	7
	3.6 Municipal And Provincial Policies And Regulations (Walker, Poole, Milligan)	8
4	Conserving The Existing Rental Housing Stock	
	4.1 Recent Rental Stock Losses and the Impact of Deconversion (Clayton Research Associates and Lewinberg Consultants)	9



4.2	Future Conservation Requirements And Costs for High-Rise Apartments and the Possible Impact on Rents and Tenants (Klein & Sears and Clayton Research Associates)	10
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5	Data Sources And Problems (Clayton Research Associates)	11
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This particular volume (Volume #3) of the study report was prepared by two different consultants. Mr. Jack Klein of Klein & Sears, Architects was responsible for the first part of this volume dealing with physical potential in terms of house forms and land use patterns and Mr. Greg Lampert of Clayton Research Associates prepared the second part of this volume dealing with an aggregate analysis of the physical potential of the existing housing stock.





## INTRODUCTION TO PART 3

This part of the study deals with Objective #1

"To examine the opportunities and constraints that exist for meeting some of the future additional housing needs in Ontario during the 1980's and 1990's through the intensification of existing residential neighbourhoods"

"Residential Intensification" as used in this study means increasing the number of households accommodated in existing buildings and/or on existing serviced land in already built-up parts of urban areas through conversion of existing structures and through additions to existing structures and the building of new structures on vacant or near vacant land. Intensification as used in this study is achieved with little or no demolition of existing buildings.

The interest in intensification reflects emerging housing market trends, changing urban population profiles and the economics of new housing construction, in particular new private rental apartments. In addition, the interest in intensification as a means of meeting some of the future housing needs in Ontario stems from a number of factors not the least of which is the economic restraint under which governments at all levels now find themselves operating and the prospect of similar conditions prevailing over the next several years. These restraint conditions have caused some governments to cut back on or freeze spending on new facilities and services and seriously assess the efficiency with which existing facilities are used. The argument in support of intensification to provide additional housing is, in part, due to these economic restraints and the potential that may exist for increasing the number of households being served by the existing urban infrastructure.

This study defined 7 basic forms or models of conversion and infill that meet the above definition of intensification:

- 1) changing grade-related type dwellings from single household use to accommodate a number of unrelated households or individuals with no or minor physical alterations (e.g. small group homes for seniors and rooming houses or a roomer in an owner-occupied dwelling)
- 2) changing grade-related type dwellings from single household use to self-contained accommodation for more than one household through physical alterations (e.g. duplexes, triplexes, etc.);
- 3) building an addition (vertically or horizontally) to a grade-related dwelling to increase the number of dwelling units;
- 4) building a second or third separate dwelling on a lot which presently has one dwelling unit in place (e.g. back lot or side lot development);

- 5) building several separate dwelling units on a lot which already has a multiple family development in place (e.g. building on landscaped open space around a high-rise building);
- 6) converting existing obsolete non-residential space to residential use (e.g. over stores along arterials); and
- 7) building new multiple residential units on vacant or near vacant sites in commercial areas (e.g. mixed-use projects in core areas).

While Models #6 and #7 are critical forms of intensification, the opportunities and constraints related to these models are well researched and documented. In fact, in the past few years the Ministry itself has conducted two investigations into the potential for residential and mixed commercial and residential infill development in the core areas of Ontario municipalities. This study concerned itself solely with investigating conversion and infill potential in existing residential neighbourhoods because of the paucity of good information that exists on the subject. In particular, emphasis was placed on the conversion models and their potential application to the 1.2 million grade-related owner occupied dwellings in Ontario urban centres of more than 10,000 people.

Models #2-5 are graphically illustrated in Figures 1-6 on the following pages. These figures provide just a few examples of the multitude of different physical forms the various types of intensification could take.

The examination of the opportunities and constraints associated with the creation of additional housing by means of the 5 models is examined in terms of:

- the physical potential of intensification vis-a-vis such issues as the convertability of various house forms, current intensity of use and the opportunities for infilling around or adding to existing dwellings;
- the economics of intensification in respect to the costs of creating new accommodation and rents required to pay for this accommodation as well as the economic impact of intensification on municipalities;
- the supply process or who could and would undertake various forms of intensification and the motivations for doing so as well as the capability and attitudes of the construction industry and lenders to facilitate intensification activities;
- the market demand for various types of accommodation that could result from intensification among various segments of the tenant market;
- community and neighbourhood impact and resistance that may occur as a result of or in anticipation of increased intensification activities in the various types of neighbourhoods that are traditionally found in the urban fabric of Ontario municipalities;
- government policies and regulations and in particular, municipal official plans and zoning by-laws.



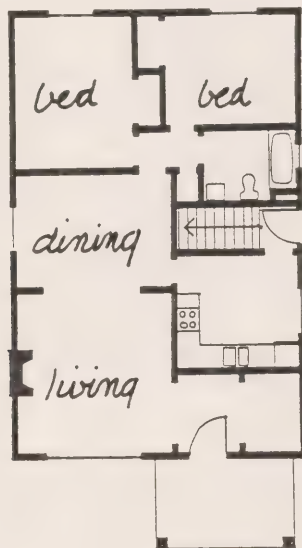
FIGURE 1 – Model 2

**BUNGALOW CONVERSION**

- a self contained one bedroom unit is provided in addition to the existing ground floor unit
- existing basement stairs are located adjacent to the back entrance facilitating conversion
- window wells or excavation to create a sunken patio can increase natural light for a basement apartment
- if the basement is already finished and/or a bathroom is in place, the conversion is likely to be less costly

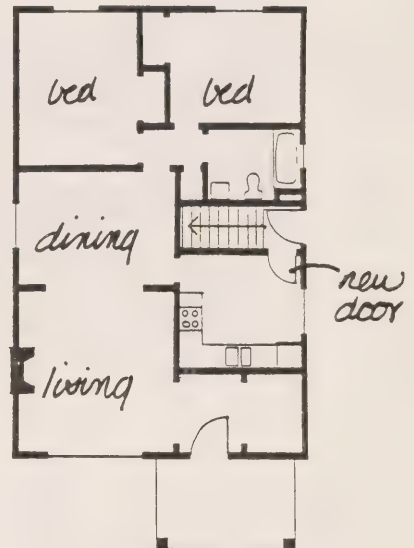


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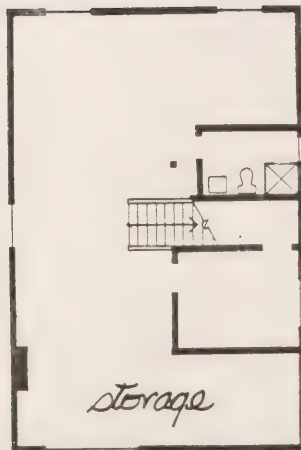


1<sup>ST</sup> FLOOR

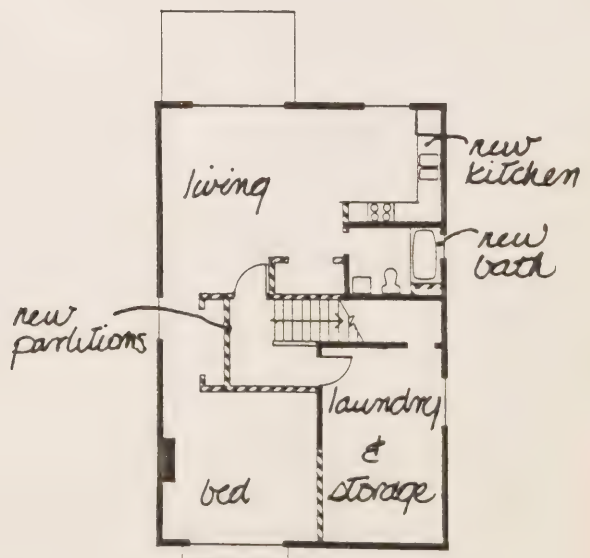
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1<sup>ST</sup> FLOOR



BASEMENT



BASEMENT

FIGURE 2 – Model 2

**CONVERSION OF A THREE STOREY SEMI-DETACHED HOUSE**

- the house is converted to provide a one bedroom unit on the ground floor and basement and a two bedroom unit on the second and third floors
- stairs and entrances are generally found on the party wall of semi-detached homes. This plan form lends itself readily to natural hall circulation
- decks can be added to second or third floors to provide additional space
- a larger house such as this provides more options for conversion. The house could be converted in a number of ways including three or four self-contained units, one on each floor or leaving the existing basement and converting to provide a bachelor apartment on one floor and a two bedroom apartment on the remaining floors

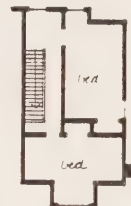


**BEFORE**



**3RD FLOOR**

**AFTER**



**3RD FLOOR**



**2ND FLOOR**



**2ND FLOOR**



**GROUND**



**GROUND**



**BASEMENT**



**BASEMENT**

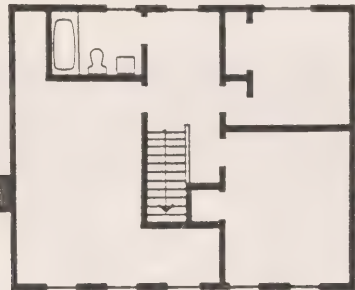
FIGURE 3 – Model 2

CONVERSION OF A TWO STOREY DETACHED HOUSE

- the house is converted to provide a one bedroom unit on the ground floor and a one bedroom unit on the second floor
- the centre hall plan of this house is not as easily adaptable as the side hall plan of the previous illustration. The resulting circulation pattern within the units tends to be from room to room rather than off a hall

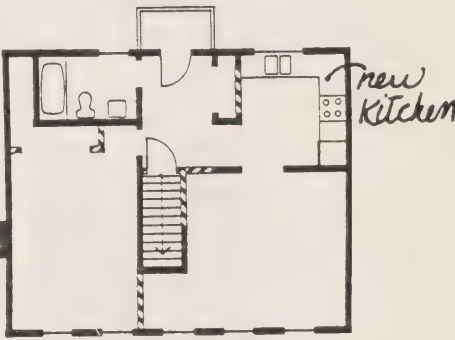


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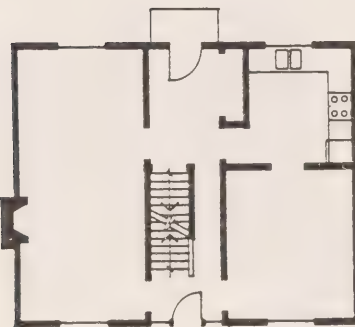


2ND FLOOR

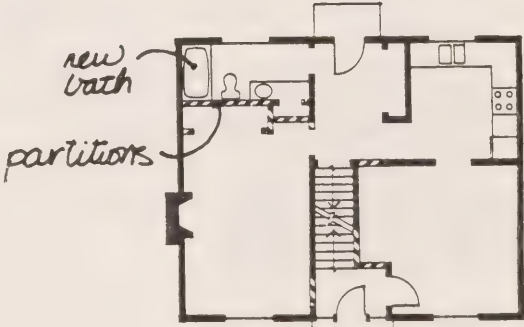
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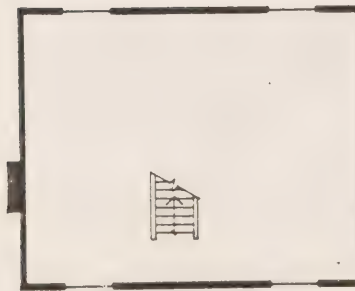
2ND FLOOR



GROUND



GROUND



BASEMENT



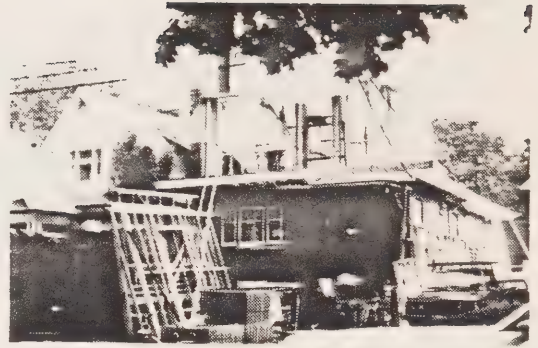
BASEMENT



FIGURE 4 – Model 3

### VERTICAL ADDITION

- a second storey is added to an existing bungalow to provide a second self-contained dwelling unit
- as the ceiling of the ground floor unit is exposed during construction, timing and weather are important concerns in planning for this type of addition



### HORIZONTAL ADDITION

- an existing garage is converted to residential space and provides a bachelor unit
- garages frequently have an existing back door and windows which can be incorporated in the conversion
- if the plumbing in the existing house is on the side of the house adjacent to the garage, the addition is likely to be less costly
- as this unit is grade related and provides access without stairs, it is particularly appropriate for a “granny unit”

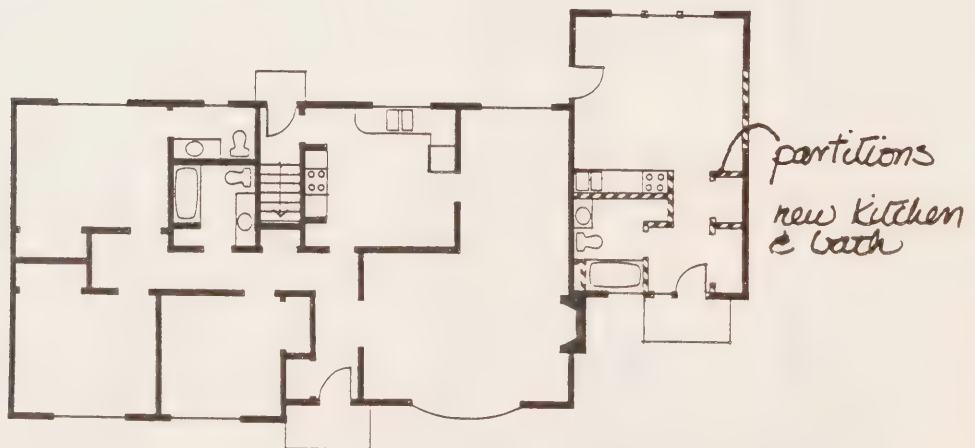


FIGURE 5 – Model 4

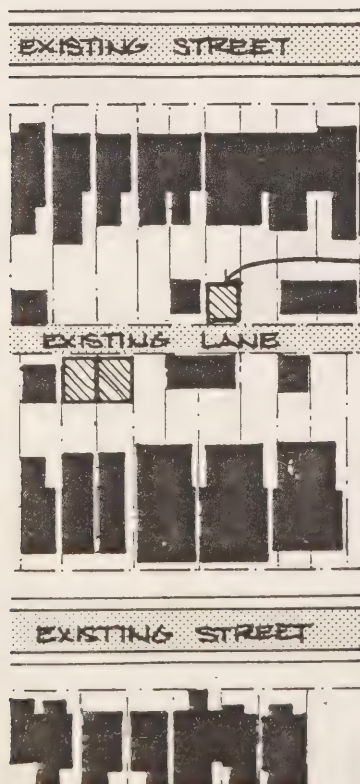
### BACK LOT INFILL

- new housing units are built at the back of the lots on which there are existing houses
- access is from a back lane in one example and from the street using the side driveway in the other
- the length of the lot and the location of the house on the lot are critical factors. Generally urban land use patterns will accommodate this type of infill more readily than suburban land use patterns where the house is typically situated close to the centre of the lot
- the new housing could provide more than one unit or larger units by building more than one floor

BACK LANE ACCESS



SIDE DRIVE ACCESS



INFILL

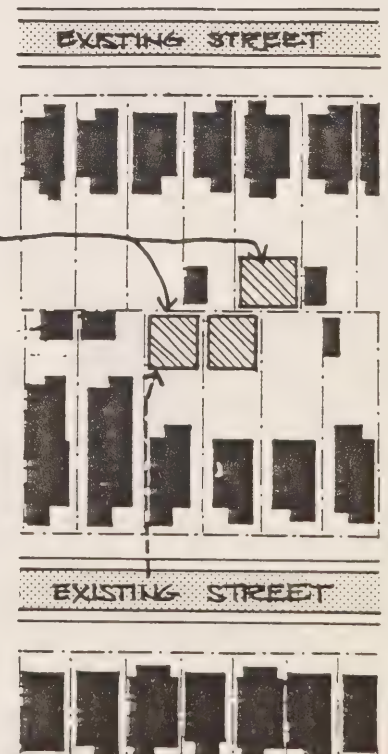
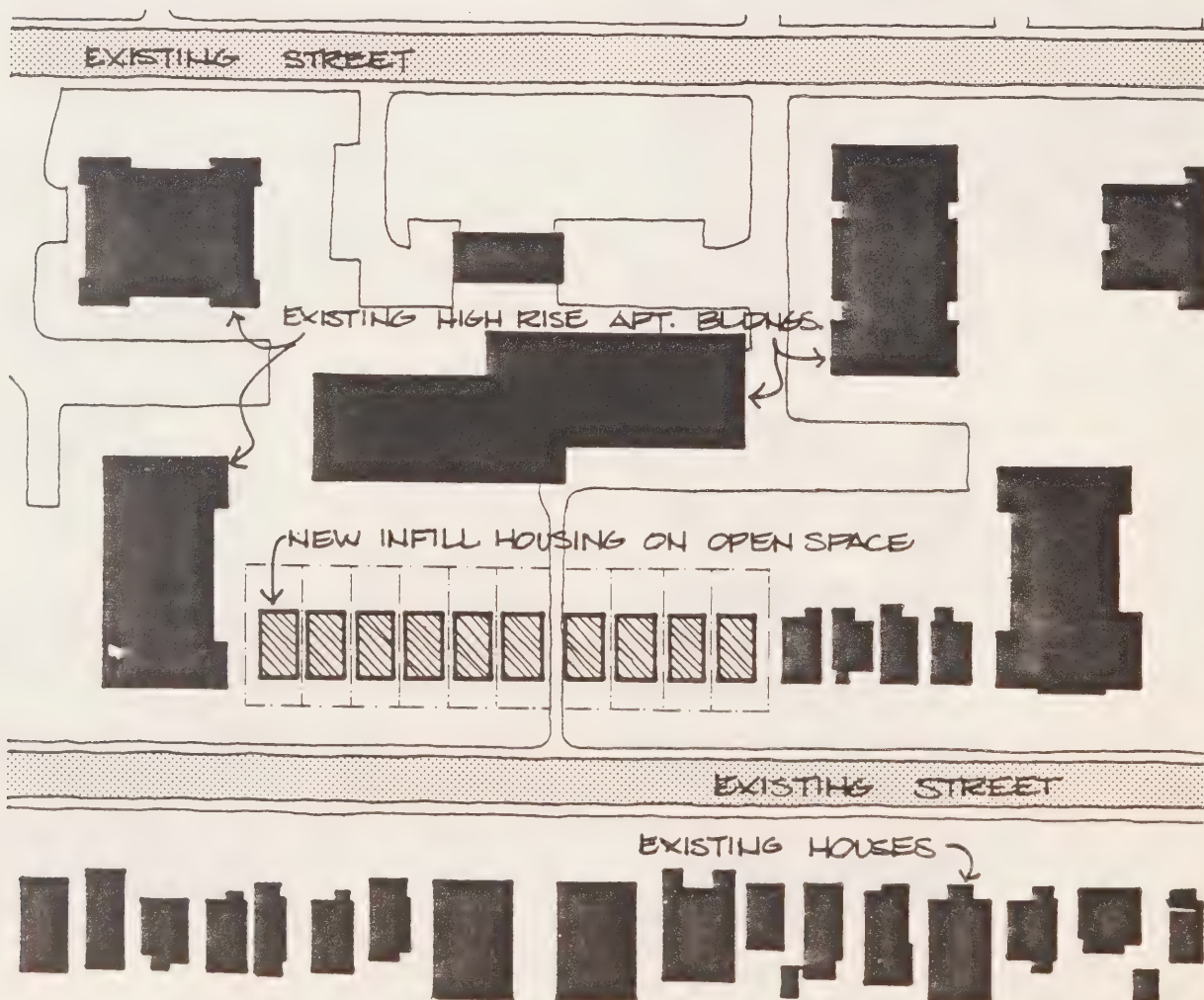




FIGURE 6 – Model 5

### INFILL ON APARTMENT GROUNDS

- a number of single family houses are shown as infill in the landscaped open space of a high rise apartment building. The new housing could also take the form of semi-detached housing, row housing or low rise apartment structures
- the housing type could be selected to be consistent with the surrounding neighbourhood
- existing underground garages for the high rise apartment buildings often have surplus spaces which could be used for the new infill housing





PART 3.1.1

PHYSICAL POTENTIAL FOR INTENSIFICATION: HOUSE FORMS AND LAND USE PATTERNS

Prepared by:  
Klein & Sears, Architects



### 3.1.1 PHYSICAL POTENTIAL FOR CONVERSION: HOUSE FORMS AND LAND USE PATTERNS

In order to assess the physical potential for conversion and infill, both existing house forms and land use patterns have been examined. With respect to conversion, a variety of typical Ontario house forms were looked at. The overall conclusion reached was that most single family grade-related house forms could be converted to create at least one additional self-contained dwelling unit. Obviously larger houses provide greater flexibility and opportunities for more dwelling units. Factors such as floor plans, age, quality of construction and location will also affect the practicality and cost of converting. Potential for infill, including horizontal additions to single family homes, is dependent upon such factors as lot size, siting and parking. Innovative parking solutions could substantially increase opportunities for infill and conversion.

In terms of the types of units created, there is potential for much greater variety in converted housing than that which the market conventionally produces. Because it is grade related, converted and infill housing is particularly appropriate for families, providing an alternative form of rental housing for them. In fact, it is likely that converted and infill housing could satisfy the needs of all types of users, except where stairs are involved, which would limit access for the handicapped and some elderly persons.

The following analysis looks at physical potential for conversion and infill in terms of house forms and land use patterns according to the five study models.

#### Model 1

(Changing grade-related type dwellings from single household use to accommodate a number of unrelated households or individuals, with no or minor physical alterations.)

Model 1 involves no physical alterations so house form is not a major consideration.

#### Model 2

(Changing grade-related type dwellings from single household use to self-contained accommodation for more than one household through physical alteration.)

Most single family grade-related house forms in Ontario could be physically altered to accommodate at least one additional self contained unit. Even a small bungalow can be converted relatively easily by providing a second unit in the basement.



The larger the original dwelling the more flexibility there is for conversion. For example a larger bungalow would likely present the option of dividing the ground floor into two units. One and a half storey houses can have dormers added to create more floor space for conversion and decks can be added to two and three storey houses to create additional outdoor space and increase conversion options.

Existing floor plans can affect circulation patterns of converted dwelling units. With side hall plans (frequently found with semi-detached houses), circulation off a hall is generally easy to provide. Converted centre hall plan homes will often of necessity have room to room circulation rather than hall circulation.

Although costs will be affected by many different factors, major costs for new plumbing can be minimized by designing conversions so that new kitchens and bathrooms are in close proximity to the existing ones. This could mean on adjoining walls or directly above or below existing facilities.

### Model 3

(Building an addition, vertically or horizontally, to a grade related dwelling to increase the number of dwelling units.)

Conversion potential can be substantially increased through vertical additions. In most cases, a second storey can be added to a bungalow plan to create a second unit. Likewise, adding a third floor to a two storey house will increase the options for converted dwelling units.

House form (configuration), lot size and siting can have a limiting effect on the potential for horizontal additions. Not all lots are large enough and the way in which the house is sited on the lot, even if it is large, can limit the potential for a horizontal addition. Generally speaking, horizontal additions are likely to be more possible with detached houses as lot sizes tend to be larger. Often corner lots will be larger creating an opportunity for a horizontal addition.

Some existing garages will present opportunities for conversion to residential space. Conversion to provide a bachelor unit is becoming a popular means in some jurisdictions, of providing a "granny unit" as the unit provides direct access without the use of stairs.

### Model 4

(Building a second or third separate dwelling on a lot which presently has one dwelling unit in place.)

The potential for back lot or side lot infill will be determined by lot size, siting of the existing dwelling and the availability of rear access to the lot. Side lot infill can only be accomplished with a minimum of 15-20 feet of

frontage whereas rear lot infill requires far less frontage. The potential for rear lot infill is therefore likely to be much greater. For rear lot infill, access can be from a back lane if this is available, or from a side driveway.

#### Model 5

(Building several separate dwelling units on a lot which already has a multiple family development in place.)

Model 5 is perhaps the least constrained of the five models in terms of existing land use patterns. Many high-rise apartment complexes constructed during the 60's and 70's were built on the "tower in the park" principle with vast amounts of landscaped open space surrounding the complex. A large number of these projects offer considerable opportunity for infilling grade related or low-rise type residential buildings on part of this open space. Existing underground garages of such developments may have surplus parking spaces which can be used for the new infill housing.





PART 3.1.2

PHYSICAL POTENTIAL OF THE EXISTING STOCK

Prepared by:  
Clayton Research Associates



### 3.1.2. PHYSICAL POTENTIAL OF THE EXISTING STOCK

#### 1.0 INTRODUCTION

This section presents an examination of the physical potential for implementation of the various models outlined in the introduction. Since generally available data from the Census and other sources casts relatively little light on this important area, an attempt was made as part of this study to generate such data from the provincial assessment files and from local municipal information sources. Some important new information has been gathered as a result of these efforts, but in most cases the information pertains only to the case study areas; judgements about the applicability of information on these areas to other parts of the province are difficult. In general, the discussion focuses on the case study areas for which suitable information on the dwelling stock was available for this study. As such, the conclusions to be drawn from the analysis must be tempered by the fact that complete information on all areas simply is not available.

The most comprehensive data source on the housing stock in Ontario is the 1981 Census of Canada. Though most of the information from the Census was not available at the time this study was prepared, special Census tabulations requested from Statistics Canada provided much of the base housing stock and occupant information from which the estimates presented in this section were formulated. The original intention was to supplement and broaden this data base through the extensive use of provincial assessment data and municipal data in areas where Census data was not available. While most important new information was obtained from these supplementary sources, the results generally were disappointing compared to original expectations.<sup>1</sup>

Before outlining the physical potential of the grade-related stock, it is useful to examine the characteristics and distribution of this stock.

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<sup>1</sup> Part V, Volume 11 on Data Sources and Problems explains in more detail the types of problems encountered in attempting to use the provincial property assessment files for this study as well as the methods used to overcome the problems and some suggestions on how the vast potential for data from these files might be more effectively utilized.



Table 1.0: Owner-Occupied And Total Occupied Grade-Related Stock  
By Dwelling Type  
Case Study Areas And Ontario, 1981 (000's Of Dwelling Units)

Case Study Areas	Owner-Occupied Dwellings				Total Occupied Dwellings			
	Single- Detached	Semi- Detached	Row	Total	Single- Detached	Semi- Detached	Row	Total
Toronto	41.8	38.2	8.0	88.0	49.8	48.9	12.8	111.5
North York	62.7	18.3	5.5	86.5	66.3	19.5	12.2	98.0
Hamilton	53.8	3.8	2.6	60.2	58.5	5.0	6.5	70.0
Ottawa	33.9	3.8	3.2	40.9	37.6	8.0	11.9	57.5
Kingston	7.1	0.7	0.4	8.2	8.2	1.3	1.5	11.0
Woodstock	5.5	0.6	0.1	6.2	5.9	1.0	0.5	7.4
All Case Study Areas	204.8	65.4	19.8	290.0	226.3	83.7	45.4	355.4
Urban Ontario Centres 10,00+	1,003.5	151.8	64.6	1,219.9	1,092.6	192.4	145.8	1,430.8
All Ontario	1,527.7	163.6	67.1	1,758.4	1,691.0	215.5	154.1	2,060.6

Source: 1981 Census of Canada

In total, there are over 2 million grade-related dwellings in the Province of Ontario; of these, over 1.4 million are located in urban areas with a population of 10,000 persons or more - it is in these urban areas which this study is most interested.

- . The vast majority of the grade-related stock in Urban Ontario is owner-occupied, only about 15 percent of the stock is rental.
- . Single-detached dwellings comprise over three-quarters of the grade-related stock in Ontario urban areas.
- . The six case study areas selected for this study comprise a total of almost one-quarter of the urban grade-related stock in Urban Ontario.
- . The City of Toronto appears to be the most atypical of the case study areas with 55 percent of its grade-related stock comprised of semi-detached and row units and over 20 percent of its stock in rental tenure. The City accounts for over one-quarter of Urban Ontario's semi-detached dwelling stock.
- . In North York and Ottawa semi-detached and row dwellings account for approximately one-third of the grade-related stock.
- . The single-detached house is clearly dominant in the other centres where this housing form accounts for 75-85 percent of the grade-related stock.

## 2.0 THE PHYSICAL POTENTIAL FOR CONVERSION MODELS 1 AND 2

Models 1 and 2 relate to the rearrangement of living space within an existing grade-related dwelling either to facilitate the accommodation of additional unrelated persons within the same household (sharing accommodation) or to alter the building such that an additional household (or households) could be accommodated:

- . Model 1: changing a grade-related dwelling such that additional unrelated persons could be added to the household by sharing accommodation;
- . Model 2: changing a grade-related dwelling from single household use to multiple household use through physical alterations to create additional self-contained dwelling units.<sup>1</sup>

In neither case is the outside appearance or actual size of the building substantially altered, i.e., the original gross floor area is maintained.

Special tabulations obtained from the Ontario Ministry of Revenue property assessment files for the six case study areas indicate that, almost by any reasonable yardstick, a considerable proportion of the owner-occupied grade-related stock of dwellings is under-utilized. Table 2.0 presents estimates of the percentage distribution of the owner-occupied grade-related stock in the case study areas by gross floor area/person ratio.<sup>2</sup>

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<sup>1</sup> The Census of Canada definition of a household as a person or group of persons who occupy a self-contained dwelling unit has been adopted for this study. A self-contained dwelling is a structurally separate set of living quarters with a private entrance from outside or from a common hallway or stairway inside the building. In Model 1, the original self-contained dwelling is maintained whereas in Model 2, at least one additional self-contained unit is created.

<sup>2</sup> Similar data obtained for the tenant-occupied stock was not considered to be sufficiently reliable for inclusion in this analysis.

Table 2.0: Utilization Of Owner-Occupied Grade-Related Stock  
Case Study Areas, 1981 (Percent)

Case Study Area	Gross Floor Area/Person Ratio (Square Feet/Person)								Median Sq. Ft./ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+	Total*	
Toronto	11.0	38.2	24.8	9.4	12.0	3.1	1.4	100.0	508
North York	10.4	49.8	25.1	7.5	5.5	1.1	0.6	100.0	449
Hamilton	16.7	47.6	21.5	6.0	6.6	1.2	0.4	100.0	425
Ottawa	7.8	43.0	29.4	8.4	9.0	1.8	0.6	100.0	494
Kingston	11.3	42.3	25.6	8.7	9.3	2.0	0.8	100.0	479
Woodstock	15.5	47.1	21.4	7.9	6.5	1.2	0.4	100.0	433
All Case Study Areas	11.7	45.0	24.8	7.9	8.1	1.8	0.8	100.0	463

\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from Ministry of Revenue property assessment files.

In general, all case study areas have a similar utilization pattern though there are minor differences. Many of these differences can be explained by the different occupant profiles in each area since families clearly have a much lower average gross floor area/person ratio than singles or couples (see Table 2.1 below).

The median gross floor area/person ratio for most case study areas is in the 425-500 square foot range. By most definitions this is a relatively generous utilization figure. Nonetheless, just over 10 percent of the stock in most case study areas has a gross floor area/person ratio of less than 250 square feet - almost all of these (overcrowded?) households appear to be families with children.

There appears to be no specified minimum acceptable gross floor area/person ratio in the Ontario Building Code; however, something in the order of 250 square feet (net) appears to be the minimum size which a bachelor unit may be under the Code. For the purposes of this study, 250 net square feet per person is assumed to be the minimum ratio which households would be prepared to accept.

It would appear that all dwellings with gross floor area/person ratios of 500 square feet or more could accommodate additional people without violating the 250 net square foot minimum figure: for example, if a two-person household with a current gross floor area/person ratio of 500 square feet added another person, the resulting ratio would be 333 square feet per person



- still above the 250 square foot net figure even if allowance is made for the fact that the 333 figure is gross while the 250 minimum is net. The only circumstance in which a dwelling with a ratio of 500 square feet per person would violate the minimum net figure by adding a person is the case of one-person household; it is considered that owner-occupied grade-related dwellings of 500 square feet occupied by one person are relatively rare. In any case these are likely to be more than offset by the dwellings with less than 500 square feet per person which could add a person and still not violate the 250 net square foot minimum figure.

In over 40 percent of the owner-occupied grade-related stock the ratio is over 500 square feet per person and in over 10 percent of the stock the ratio exceeds 1,000 square feet per person. It is clear that there is considerable scope for more effective utilization of the grade-related stock along the lines presented in Models 1 and 2.

Table 2.1: Utilization of Owner-Occupied Grade-Related Housing Stock  
By Owner Characteristics  
Total Case Study Areas, 1981 (Percent)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Total**	Media Sq. Ft. Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000 +		
Young Owner-Occupants, Less Than 35 Years									
- Singles	0.0	3.6	19.1	18.6	46.0	9.6	3.1	100.0	1,095
- Couples	0.1	17.5	61.7	15.2	4.9	0.5	0.1	100.0	631
- Families (with children)	19.1	67.9	10.7	1.9	0.3	0.0	0.0	100.0	364
Single-Parent Owner Families	4.5	48.3	36.1	8.4	2.6	0.2	0.0	100.0	486
Middle-Aged Owner-Occupants									
- Singles & Couples (35-54 Years no children)	0.1	12.9	45.4	17.5	18.5	4.0	1.7	100.0	704
- Families (with children)									
- 35-54 Years	22.4	62.7	12.2	2.1	0.5	0.1	0.0	100.0	360
- 55+ Years	13.1	67.2	15.4	3.1	1.0	0.1	0.1	100.0	387
Empty-Nester Owners 55+ Years									
Singles and Couples no children	0.1	15.0	43.8	16.7	19.0	3.9	1.5	100.0	600
Total Owners (Except Multiple-Family Households)	11.7	45.0	24.8	7.9	8.1	1.8	0.8	100.0	463

\* Includes owner-occupants of all single-detached, semi-detached and row dwellings except multiple-family households; the gross floor area/person ratio distribution for multiple-family households could not be reliably estimated using the property assessment data.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from Ministry of Revenue property assessment files.

A following major section examines the types of owners who might look favourably upon conversion of their dwellings. As a preview to that analysis, Table 2.1 presents, for the six case study areas together, the gross floor area/person ratio distribution for the major owner-occupant groups.

Clearly, there is a considerable variation in the utilization of the stock among different types of owners:

- . Almost 60 percent of young singles (defined in this study to include non-family households of one or two persons where the head is aged less than 35 years) who own a grade-related dwelling have a ratio in excess of 1,000 square feet per person; less than 5 percent have ratios of less than 500 square feet per person.
- . Young owner couples also have relatively high gross floor area/person ratios - over 80 percent have more than 500 square feet per person.
- . Families with both spouses as well as children living at home, regardless of the age of the head, appear generally to be more intensively housed - over 80 percent have ratios of less than 500 square feet per person; about 20 percent overall have less than 250 square feet per person.
- . Single-parent families appear to be less intensively housed than families with both spouses - the estimates for this group are considered to be less reliable than for the other groups so these figures should be treated as being only broadly representative of the distribution for single-parent families.
- . Empty-nesters as well as middle-aged singles and couples, appear generally to have large amounts of living space per person - about three-quarters of the owner households in these groups have gross floor area/person ratios in excess of 500 square feet per person.

These general observations appear to apply in all six case study areas; there was no significant variation in the utilization distributions for each group in different areas.

If one assumes that the utilization distributions presented for each group in the combined case study areas (Table 2.1) are generally representative of the utilization distributions for the same groups for Urban Ontario as a whole, it is possible to estimate the numbers of dwellings in each utilization category. Table 2.2 presents these estimates for Urban Ontario based on the 1981 Census of Canada distribution of owner-occupied grade-related dwellings by household type.



Table 2.2: Utilization Of Owner-Occupied Grade-Related Housing Stock By Owner Characteristics Urban Ontario, 1981 (000's Of Dwelling Units)\*

	Gross Floor Area/Person Ratio (Sqaure Feet/Person)							Median Sq. Ft./ Person	
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+		Total**
Young Owner-Occupants, Less Than 35 Years									
- Singles	0.0	0.7	3.5	3.4	8.4	1.7	0.6	18.2	1,095
- Couples	0.1	9.9	35.0	8.6	2.8	0.3	0.1	56.7	631
- Families (with children)	31.0	110.1	17.4	3.1	0.5	0.0	0.0	162.2	364
Single-Parent Owner Families	3.4	36.3	27.1	6.3	2.0	0.2	0.0	75.2	486
Middle-Aged Owner-Occupants									
- Singles & Couples (35-54 Years no children)	0.1	10.7	37.6	14.5	15.3	3.3	1.4	82.8	704
- Families (with children)									
- 35-54 Years	94.5	264.5	51.5	8.9	2.1	0.4	0.0	421.8	360
- 55+ Years	13.7	70.4	16.1	3.3	1.1	0.1	0.1	104.8	387
Empty-Nester Owners 55+ Years									
Singles and Couples (no children)	0.3	41.0	119.8	45.7	52.0	10.7	4.1	273.5	699
Total Owners (Except Multiple-Family Households)	143.1	543.6	308.0	93.8	84.2	16.7	6.3	1,195.4	463

\* The number of owner-occupied grade-related units indicated in this exhibit does not correspond with the total shown in Table 1.0 because the data here excludes multiple-family households; the gross floor area/person ratio distribution could not be reliably estimated for this group using the property assessment data.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.

Assuming that any grade-related dwelling with a current utilization figure of 500 or more square feet per person is capable of accomodating an additional person or family (Models 1 and 2) without overcrowding, the overall potential for such conversions in Urban Ontario totals over half a million units. Of course, only a fraction of the owners of these units will find the conversion options attractive. However, considering that the majority of the half million units are owned by groups which might look favourably upon conversion of their dwellings, there does seem to be considerable potential in this regard.

- . About 45 percent are empty-nester singles or couples aged 55 years or more.
- . One-quarter are singles and couples aged less than 55 years.
- . Just over one-quarter are families with children - a group considered unlikely to wish to convert their dwelling.

It is also worth noting that the demographic trends projected for the 1980's and 1990's will likely swell the ranks of the number of owner-occupied grade-related dwellings which (under the above type of analysis) are under-utilized. Particular trends which will strengthen this are:

- . The overall decline in average household sizes in most groups which is expected to continue over the next two decades;
- . The aging of the very large group of families (with children) who's heads are now aged 35-54 years into the empty-nester group; and
- . The expected continuing trend towards one and two person households in most age groups.

The percentage distribution of the under-utilized grade-related dwelling stock among the various owner-occupant groups in each case study area is presented in Table 2.3.

Table 2.3: Owner-Occupied Grade-Related Housing Stock With Gross Floor Area/ Person Ratios Of 500 Square Feet/Person Or More By Owner Characteristics, Case Study Areas And Urban Ontario, 1981 (Percent Distribution)\*

	Case		Study			Areas		
	Toronto	North York	Hamilton	Ottawa	Kingston	Woodstock	Total**	Urban Ontario
Young Owner-Occupants, Less Than 35 Years								
- Singles	6.1	1.7	3.7	3.4	2.9	4.5	3.9	3.5
- Couples	7.7	5.6	8.7	7.8	8.6	4.5	7.3	9.2
- Families (with children)	1.8	4.2	2.3	2.0	0.0	4.5	2.6	4.1
Single-Parent Owner Families	8.1	8.4	6.0	8.3	2.9	4.5	7.7	7.0
Middle-Aged Owner-Occupants								
- Singles & Couples (35-54 Years no children)	15.4	12.5	13.8	14.6	14.3	13.6	14.1	14.2
- Families (with children)								
- 35-54 Years	10.6	17.0	4.6	8.8	5.7	4.5	10.9	12.4
- 55+ Years	4.5	6.4	3.2	4.4	2.6	0.0	4.7	4.1
Empty-Nester Owners 55+ Years								
Singles and Couples (no children)	45.7	44.3	57.8	50.7	62.9	63.6	48.9	45.6
Total Owners (Except Multiple-Family Households)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

\* Includes owner-occupied single-detached, semi-detached and row dwellings except those occupied by multiple-family households.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.



In all areas, by far the largest group with under-utilized grade-related dwelling is the empty-nester group. They account for about 45 percent of the stock in Toronto and North York, up to about 63 percent in Kingston and Woodstock. Clearly, it is with this group that the lion's share of the potential for Conversion Models 1 and 2 rests in all case study areas.

It should be noted in interpreting the information presented in this section that only owner-occupied grade-related dwellings are covered. Information on the utilization of tenant-occupied dwellings could not be derived reliably from the property assessment data so little is known about the 211,000 tenant-occupied (absentee landlord) grade-related dwellings in Urban Ontario in 1981. These absentee landlord units accounted for about 15 percent of the total occupied grade-related stock in 1981.

### 3.0 THE PHYSICAL POTENTIAL FOR MODEL 3

Model 3 relates to building an addition (either vertically or horizontally) to a grade-related dwelling to increase the number of dwelling units in the property. The physical capacity to build such additions to typical structures is such that most (if not all) of the grade-related stock could be considered as potential for Model 3. In fact, however, a major constraint on such activity is the zoning under which the dwelling is situated; in most areas, owners will be constrained as to the size (if any) of additions they are allowed to make.

Unfortunately, relatively little comprehensive data is available on the types of zoning which apply to the grade-related stock and the amount of new additions which would be allowed under the zoning regulations. In an attempt to cast some light on this important area, a series of special tabulations for the City of Toronto were obtained for this study through the co-operation of the City of Toronto Planning and Development Department. The tabulations which are applicable to Conversion Model 3 provide not only the breakdown of the current stock of grade-related dwellings by zoning category, but also the amount of gross floor area which could be added to each dwelling under the current zoning restrictions. At the outset of the study, it was intended to obtain similar information for all case study areas, however, the complexity of the zoning regulations and the limitations of the data on the Ministry of Revenue property assessment files in addition to time and cost considerations made this ambitious exercise unfeasible. The City of Toronto data should, nonetheless, provide a valuable insight into the physical potential for this type of conversion.

The main residential zoning categories in the City of Toronto and the regulations as they pertain to conversions are as follows:

- . R1 - permits private detached dwellings only, converted houses permitted only within a restricted area;
- . R1A and R1F - permits conversions only in private detached dwellings;
- . R2, R3, R4 and R4A - permits conversions in other than row houses or apartments.

There are, of course, some grade-related dwellings in other area zoned for commercial or other uses, but these represent only about 3 percent of the stock, so they are not covered explicitly here.

Table 3.0 presents the estimated breakdown of the 1981 stock of grade-related dwellings in the City of Toronto by zoning.

Table 3.0: Grade-Related Stock By Zoning  
City Of Toronto, 1981 (000's Dwelling Units)

	<u>R1</u>	<u>R1A &amp; R1F</u>	<u>R2, R3, R4 &amp; R4A</u>	<u>Other</u>	<u>Total</u>
Single-Detached	13.4	2.8	32.7	0.8	49.7
Semi-Detached	0.4	1.1	45.6	1.9	49.0
Row	0.0	0.1	11.7	1.0	21.8
	<u>13.8</u>	<u>4.0</u>	<u>90.0</u>	<u>3.7</u>	<u>111.5</u>

Source: Estimates by Clayton Research Associated based on special tabulations from the City of Toronto Planning and Development Department and the 1981 Census of Canada.

From this table it seems clear that zoning is not a major restriction on conversion for the vast majority of Toronto's grade-related stock - almost three-quarters of the stock meet the zoning criteria which would allow conversion of the structure to multiple household use.

There is, however, a further zoning restriction on building additions onto dwellings; i.e., the gross floor area/lot area ratio permitted. In the City of Toronto, this restriction is achieved by establishing a secondary zoning category which specifies allowable gross floor area:

- Z1: 0.35 times lot area
- Z2: 0.6 times lot area
- Z3: 1.0 times lot area
- Z4: 2.0 times lot area
- Z5: 2.5 times lot area

Applying these maximum gross floor area/lot area ratios to the stock of grade-related units (for which both lot area and gross floor area were available on the City of Toronto special files) it was possible to establish how much potential actually exists for creating additions to the stock of grade-related dwellings under current zoning.<sup>1</sup>

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<sup>1</sup> This assumes that all other criteria such as side-yard and set-back requirements and building code regulations can be satisfied.



Table 3.1: Grade-Related Stock Where Current Zoning Would Permit Additional Building Area  
City Of Toronto, 1981 (000's Dwelling Units)

<u>Additional Building Area Allowed Under Z Zoning (Square Feet)</u>	<u>R Zoning Permits No Conversions*</u>	<u>R Zoning Permits Conversions</u>	<u>Total</u>
0 or less	13.6	25.4	39.0
1 - 299	4.9	20.2	25.1
300 - 99	3.6	13.2	16.8
600 - 899	3.2	8.7	11.9
900 - 199	1.9	5.6	7.5
1,200 - 1,499	1.1	2.9	4.0
1,500 - 1,799	0.7	1.6	2.3
1,800 - 2,099	0.4	1.0	1.4
2,100 +	<u>1.0</u>	<u>2.5</u>	<u>3.5</u>
Total	30.4	81.1	111.5

\* The "other" zoning category from Table 3.0 has been included in this category for the purposes of this analysis.

Source: Estimates by Clayton Research Associates based on special tabulations from the City of Toronto Planning and Development Department and the 1981 Census of Canada.

In total, over two-thirds of Toronto's grade-related dwelling stock could not, under existing zoning restrictions, build a Model 3 type of addition:

- Over 30,000 units are in areas (or are of the structure type) where no conversions are permitted;
- Over 25,000 units have gross floor area/lot area ratios which are equal to or exceed the allowable maximum; and
- While a further 20,000 units could theoretically add up to 299 square feet, this is approximately the minimum sized addition which could be constructed.

The remainder of the grade-related stock, however - a total of more than 35,000 units - appear to have the physical potential to allow an addition in excess of 300 square feet to be constructed without violating zoning restrictions. This represents a sizeable potential.

Over 5,000 of these units could accomodate in excess of 1,500 square feet of addition - enough to add 3-4 additional apartment type units.

This section has addressed only the capacity to build additional square footage. Another consideration if it is intended to make a horizontal type of addition is the amount of lot area available. This is covered in the next section.

#### 4.0 THE PHYSICAL POTENTIAL FOR MODEL 4

Infill Model 4 relates to building a second or third dwelling unit on a lot which already has one grade-related dwelling in place; examples would include back lot and side lot developments. The physical potential for such infill is constrained by the amount of lot space available as well as by the zoning which applies to the property.

As with Model 3, there is relatively little comprehensive data available on the physical potential for this type of conversion. A second set of tabulations obtained for this study through the co-operation of the City of Toronto Planning and Development Department do, however, provide an important insight into the physical potential for Model 4 in the City of Toronto.

The City of Toronto zoning bylaws restrict the amount of lot area which can be built upon by establishing minimum landscaped open space requirements. The open space requirements are:

- Z1 to Z3: 30 percent of lot area
- Z4 to Z5: 35 percent of lot area

Applying these minimum open space requirements to the stock of grade-related dwellings (for which both existing ground floor area and lot areas were available on the City of Toronto files) yielded the information in Table 4.0; i.e., the potential under current zoning for building additional dwellings on lots which already have a grade-related dwelling in place.<sup>1</sup>

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<sup>1</sup> As with the estimates of additional building area allowed under current zoning (Table 3.1) this analysis assumes that all other criteria such as side-yard and set-back requirements can be satisfied.



Table 4.0: Grade-Related Stock Where Current Zoning Would Permit Additional Lot Area To Be Built Upon City Of Toronto, 1981 (000's Dwelling Units)

<u>Additional Lot Area Allowed Under Z Zoning (Square Feet)</u>	<u>R Zoning Permits No Conversions*</u>	<u>R Zoning Permits Conversions</u>	<u>Total</u>
0 or less	14.1	30.1	44.2
1 - 299	6.0	36.6	42.6
300 - 599	3.9	10.5	14.4
600 - 899	2.4	2.3	4.7
900 - 1,199	1.5	0.8	2.3
1,200 - 1,499	0.9	0.3	1.2
1,500 - 1,799	0.5	0.2	0.7
1,800 - 2,099	0.3	0.1	0.4
2,100 +	<u>0.8</u>	<u>0.2</u>	<u>1.0</u>
Total	30.4	81.1	111.5

\* The "other" zoning category from Table 3.0 has been included in this category for the purposes of this analysis.

Source: Estimates by Clayton Research Associates based on special tabulations from the City of Toronto Planning and Development Department and the 1981 Census of Canada.

In total, over 93 percent of the City of Toronto's grade-related stock is prohibited by one form of zoning or the other from creating Model 4 types of infill:

- . Over 30,000 units are located in areas (or are of the structure type) where no conversions are permitted;
- . A further 30,000 units do not have sufficient open space to allow even one more square foot of lot area for building; and
- . Over 36,000 units have sufficient open space only to allow less than 300 square feet of additional lot area for building - 500 square feet is considered to be the minimum available lot area on which Model 4 would be feasible.

The physical potential for Model 4 is estimated to be limited under existing open space zoning requirements to less than 7 percent of the grade-related stock in the City of Toronto.

If the only restriction to infill was the landscaped open space requirements specified under the Z zoning restrictions (i.e., if Model 4 were allowed in areas where the R zoning prohibited infill) a total of approximately

13 percent of the stock would be considered to have the physical potential for such infill. This includes all grade-related dwellings which could build an additional 500 square feet of lot area and still meet the Z zoning requirements.

The discussion on Models 3 and 4 has treated their physical potential separately on the basis of additional permitted square footage of building area and additional lot area which could be built upon according to zoning restriction. In fact, both models would have to satisfy the zoning restrictions, i.e.:

- . Model 3 would not only be restricted by the permitted square footage of building but would also have to satisfy the open space requirement as well;
- . Model 4 would not only have to satisfy the open space requirement but would be restricted by the permitted square footage as well.

Therefore, the physical potential for each of these models cannot be regarded as additive; in fact, given the zoning restriction the physical potential for either would likely be less than that indicated in Tables 3.1 and 4.0 since the other restriction might disqualify the dwellings eligible under each of the zoning restrictions.

## 5.0 THE PHYSICAL POTENTIAL FOR MODEL 5

Model 5 relates to building several separate rental dwelling units on a lot which already has a multiple family development in place, an example would include building a set of townhouses on landscaped open space around a high-rise building. Although most high-rise apartment buildings in residential areas have a relatively large amount of open space, the ability to build on this land is constrained by zoning regulations.

Available information on the physical potential for Model 5 is as scarce as for the other models. As with Models 3 and 4, the only reliable information which was available for this study on the physical potential for Model 5 was obtained from the City of Toronto Planning and Development Department.

Using the minimum landscaped open space requirements applicable under each apartment property's Z zoning restrictions, Table 5.0 presents estimates of the number of apartment properties which have available lot area for building. Unfortunately, the tabulation covers only three-quarters of the apartment structures in Toronto; the majority of the remainder have commercial zoning - it seems unlikely that many of these commercially zoned properties would have excess lot area available.

Table 5.0: Apartment Properties Where Current Zoning Would Permit Additional Lot Area To Be Built Upon City Of Toronto, 1982

<u>Available Lot Area (Square Feet)</u>	<u>Total</u>	<u>Percent</u>
0 or less	717	66.0
1 - 1,999	151	13.9
2,000 - 4,999	71	6.5
5,000 - 9,999	50	4.6
10,000 - 14,999	78	7.2
15,000 - 29,999	0	0.0
30,000 +	20	1.8
Total	1,087	100.0

Source: Special tabulations prepared by City of Toronto Planning and Development Department

The physical potential for the construction of additional new units of the Model 5 type appears to be relatively limited. Two-thirds of apartment properties have insufficient open space to allow even one more square foot of lot area for building; and a further 20 percent have less than 5,000 square feet of lot area available.

Nonetheless, a total of 148 apartment properties in the City of Toronto have sufficient open space that more than 5,000 square feet could be used for additional building without violating the minimum open space requirements.<sup>1</sup> If one assumes an average ground floor area of about 400 square feet for these additional units, it would appear that in excess of 5,000 new units could be created on under-utilized apartment sites in the City of Toronto.

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<sup>1</sup> Such building might, on the other hand, violate the gross floor area/lot area zoning restrictions; this was not explored in this study.



#### APPENDIX A:

#### TABLES - UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK

- City of Toronto
- City of North York
- City of Hamilton
- City of Ottawa
- City of Kingston
- City of Woodstock
  
- Urban Ontario
- Total Ontario

Source: Special tabulations from Ministry of Revenue property assessment files and estimates by Clayton Research Associates based on 1981 Census information.



## DESCRIPTION

Three sets of tabulations are included here:

- . Tables 1-7: the percentage distribution of the owner-occupied grade-related housing stock for each case study area showing the gross floor area/person ratio for each group of owners. The distributions were estimated using special tabulations from the Ministry of Revenue property assessment files with some adjustments by Clayton Research as deemed appropriate. The adjustments were necessary because the assessment data did not contain sufficient detail to identify the groups required in other than a very broad manner.
- . Table 8: a comparison of the sizes of the groups calculated from the assessment data (after adjustments by Clayton Research Associates) and from the 1981 Census - the latter are considered to be most reliable. In general, except for single-parent families, the ratios are in reasonable proximity to the ratio for total owners. The totals are different primarily because the assessment data relates to properties while the Census data relates to dwelling units.
- . Tables 9-16: estimates of the utilization of the stock of owner-occupied grade-related dwellings (from the 1981 Census) showing the gross floor area/person ratio for each group of owners. These estimates were prepared by applying the percentage distributions in Tables 1-7 to the 1981 Census stock of dwellings (Table 8). The estimates for single-parent families in all areas should be treated with caution. The estimates for Ontario were prepared based on the total case study area estimates and should be regarded as only very broadly indicative of province-wide trends.

TABLE 1  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF TORONTO, 1981 (PERCENT)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Median Square Feet/ Person	
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+		
Young Owner-Occupants, Less Than 35 Years							Total**		
Singles	0.0	3.3	16.6	16.8	48.1	10.5	4.6	100.0	1,138
Couples	0.1	13.7	62.9	17.7	5.1	0.4	0.1	100.0	644
Families (with children)	20.5	66.8	10.4	1.9	0.4	0.0	0.0	100.0	360
Single-Parent Owner Families	3.5	45.1	37.8	10.9	2.7	0.0	0.0	100.0	509
Middle-Aged Owner-Occupants									
Singles & Couples (35-54 Years no children)	0.1	10.7	38.9	19.6	22.1	5.9	2.7	100.0	754
Families (with children)									
35-54 Years	22.7	58.0	14.8	3.2	1.1	0.2	0.0	100.0	367
55+ Years	13.8	62.3	17.5	4.0	1.9	0.3	0.1	100.0	395
Empty-Nester Owners 55+ Years									
Singles and Couples no children	0.2	10.2	38.3	17.2	25.2	6.2	2.8	100.0	769
Total Owners	11.0	38.2	24.8	9.4	12.0	3.1	1.4	100.0	508

\* Includes owners of all single-detached, semi-detached and row dwellings.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from Ministry of Revenue property assessment files.

TABLE 2  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF NORTH YORK, 1981 (PERCENT)\*

		Gross Floor Area/Person Ratio (Square Feet/Person)							Median Square Feet/ Person	
		-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+		Total**
<u>Young Owner-Occupants, Less Than 35 Years</u>										
	Singles	0.0	3.3	16.6	18.5	47.0	10.9	3.6	100.0	1,123
	Couples	0.1	16.4	57.5	16.2	8.7	0.9	0.1	100.0	646
	Families (with children)	13.0	63.0	19.0	4.2	0.6	0.1	0.0	100.0	397
<u>Single-Parent Owner Families</u>										
		1.5	41.8	41.4	10.6	4.4	0.4	0.0	100.0	540
<u>Middle-Aged Owner-Occupants</u>										
	Singles & Couples (35-54 Years no children)	0.0	11.3	49.6	18.2	16.5	3.1	1.4	100.0	695
	Families (with children)									
	35-54 Years	17.1	64.8	14.9	2.6	0.5	0.1	0.0	100.0	377
	55+ Years	11.3	67.3	16.4	3.8	1.0	0.1	0.0	100.0	394
<u>Empty-Nester Owners 55+ Years</u>										
	Singles and Couples no children	0.0	14.4	48.0	18.1	15.8	2.6	1.1	100.0	685
<u>Total Owners</u>										
		10.4	49.8	25.1	7.5	5.5	1.1	0.6	100.0	449

\* Includes owners of all single-detached, semi-detached and row dwellings.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from Ministry of Revenue property assessment files.



TABLE 3  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF HAMILTON, 1981 (PERCENT)\*

		Gross Floor Area/Person Ratio (Square Feet/Person)						Total**	Median Square Feet/ Person
		250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+		
Young Owner-Occupants, Less Than 35 Years									
Singles	0.0	5.0	25.3	22.6	38.5	6.8	1.8	100.0	968
Couples	0.0	25.5	63.1	8.7	2.5	0.1	0.0	100.0	597
Families (with children)	24.9	69.9	4.6	0.6	0.0	0.0	0.0	100.0	340
Single-Parent Owner Families	9.6	55.8	29.2	4.1	0.9	0.3	0.0	100.0	431
Middle-Aged Owner-Occupants									
Singles & Couples (35-54 Years no children)	0.0	22.8	48.6	12.3	13.1	2.5	0.7	100.0	640
Families (with children)									
35-54 Years	33.7	60.9	4.7	0.6	0.0	0.0	0.0	100.0	317
55+ Years	18.2	70.9	9.5	1.1	0.2	0.0	0.0	100.0	362
Empty-Nester Owners 55+ Years									
Singles and Couples no children	0.1	23.2	42.5	14.2	16.2	2.8	0.9	100.0	657
Total Owners	16.7	47.6	21.5	6.0	6.6	1.2	0.4	100.0	425

\* Includes owners of all single-detached, semi-detached and row dwellings.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from Ministry of Revenue property assessment files.

TABLE 4  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF OTTAWA, 1981 (PERCENT)\*

		Gross Floor Area/Person Ratio (Square Feet/Person)						Total**	Median Square Feet/ Person
		250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+		
Young Owner-Occupants, Less Than 35 Years									
Singles	0.0	2.1	16.7	14.2	52.8	12.5	1.7	100.0	1,161
Couples	0.1	9.8	68.6	16.8	4.5	0.1	0.1	100.0	646
Families (with children)	10.7	74.5	13.5	1.0	0.3	0.1	0.0	100.0	381
Single-Parent Owner Families	1.7	45.3	41.5	9.0	2.6	0.0	0.0	100.0	518
Middle-Aged Owner-Occupants									
Singles & Couples (35-54 Years no children)	0.0	6.3	48.6	18.8	21.0	4.0	1.4	100.0	724
Families (with children)									
35-54 Years	16.6	68.6	13.2	1.4	0.3	0.0	0.0	100.0	371
55+ Years	9.2	69.7	18.0	2.5	0.5	0.0	0.0	100.0	396
Empty-Nester Owners 55+ Years									
Singles and Couples no children	0.0	8.1	50.1	17.5	19.5	3.8	0.9	100.0	708
Total Owners	7.8	43.0	29.4	8.4	9.0	1.8	0.6	100.0	494

\* Includes owners of all single-detached, semi-detached and row dwellings.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from Ministry of Revenue property assessment files.

TABLE 5  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF KINGSTON, 1981 (PERCENT)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+	
Young Owner-Occupants, Less Than 35 Years								
Singles	0.0	0.0	19.5	24.4	51.2	4.9	0.0	1,060
Couples	0.0	0.0	25.4	64.5	6.5	3.6	0.0	845
Families (with children)	24.2	68.8	5.9	1.1	0.0	0.0	0.0	344
Single-Parent Owner Families	7.5	60.4	22.6	3.8	5.7	0.0	0.0	426
Middle-Aged Owner-Occupants								
Singles & Couples (35-54 Years no children)	0.2	18.1	45.4	15.0	18.6	2.3	0.4	675
Families (with children)								
35-54 Years	26.3	61.2	10.5	1.6	0.3	0.1	0.0	347
55+ Years	14.1	67.8	14.4	2.7	0.6	0.0	0.3	382
Empty-Nester Owners 55+ Years								
Singles and Couples no children	0.0	20.8	40.7	16.3	16.9	4.0	1.4	679
Total Owners	11.3	42.3	25.6	8.7	9.3	2.0	0.8	479

\* Includes owners of all single-detached, semi-detached and row dwellings.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from Ministry of Revenue property assessment files.

TABLE 6  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF WOODSTOCK, 1981 (PERCENT)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+	
Young Owner-Occupants, Less Than 35 Years								
Singles	0.0	6.7	23.2	25.0	40.0	5.0	0.0	950
Couples	0.4	34.6	57.6	7.0	0.4	0.0	0.0	565
Families (with children)	23.8	70.7	5.1	0.4	0.0	0.0	0.0	343
Single-Parent Owner Families	6.1	67.4	24.5	0.0	0.0	2.0	0.0	413
Middle-Aged Owner-Occupants								
Singles & Couples (35-54 Years no children)	0.0	24.0	47.3	14.7	11.8	1.9	0.3	637
Families (with children)								
35-54 Years	33.4	59.9	5.9	0.6	0.2	0.1	0.0	319
55+ Years	18.0	69.8	9.8	1.7	0.6	0.0	0.0	365
Empty-Nester Owners 55+ Years								
Singles and Couples no children	0.1	25.9	37.6	18.4	14.1	2.8	1.1	660
Total Owners	15.5	47.1	21.4	7.9	6.5	1.2	0.4	433

\* Includes owners of all single-detached, semi-detached and row dwellings.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from Ministry of Revenue property assessment files.

TABLE 7  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
TOTAL CASE STUDY AREAS, 1981 (PERCENT)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)								Median
	250-	500-	750-	1,000-	1,500-				Square Feet/
	-249	499	749	999	1,499	1,999	2,000+	Total**	Person
Young Owner-Occupants, Less Than 35 Years									
Singles	0.0	3.6	19.1	18.6	46.0	9.6	3.1	100.0	1,095
Couples	0.1	17.5	61.7	15.2	4.9	0.5	0.1	100.0	631
Families (with children)	19.1	67.9	10.7	1.9	0.3	0.0	0.0	100.0	364
Single-Parent Owner Families	4.5	48.3	36.1	8.4	2.6	0.2	0.0	100.0	486
Middle-Aged Owner-Occupants									
Singles & Couples (35-54 Years no children)	0.1	12.9	45.4	17.5	18.5	4.0	1.7	100.0	704
Families (with children)									
35-54 Years	22.4	62.7	12.2	2.1	0.5	0.1	0.0	100.0	360
55+ Years	13.1	67.2	15.4	3.1	1.0	0.1	0.1	100.0	387
Empty-Nester Owners 55+ Years									
Singles and Couples no children	0.1	15.0	43.8	16.7	19.0	3.9	1.5	100.0	699
Total Owners	11.7	45.0	24.8	7.9	8.1	1.8	0.8	100.0	463

\* Includes owners of all single-detached, semi-detached and row dwellings.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from Ministry of Revenue property assessment files.

TABLE 8  
RECONCILIATION OF ASSESSMENT AND CENSUS DATA  
OWNERS OF GRADE-RELATED STOCK

	Toronto			Ottawa			Hamilton		
	Assess.	Census	Ratio*	Assess.	Census	Ratio*	Assess.	Census	Ratio*
<u>Young Owner-Occupants, Less Than 35 Years</u>									
Singles	779	2,800	3.59	288	700	2.43	501	800	1.60
Couples	2,402	4,000	1.67	1,307	1,700	1.30	2,467	2,600	1.05
Families (with children)	3,118	7,100	2.28	1,608	3,300	2.05	4,070	7,700	1.89
<u>Single-Parent Owner Families</u>	523	7,000	13.38	237	3,100	13.08	342	3,800	11.11
<u>Middle-Aged Owner-Occupants</u>									
Singles & Couples (35-54 Years no children)	5,129	7,600	1.48	2,653	3,200	1.21	2,810	3,900	1.39
Families (with children)									
35-54 Years	19,589	24,200	1.24	11,562	12,400	1.07	18,001	18,200	1.01
55+ Years	11,413	8,500	0.74	6,615	4,700	0.71	8,818	5,900	0.67
<u>Empty-Nester Owners 55+ Years</u>									
Singles and Couples no children	16,860	22,500	1.33	10,153	11,300	1.11	15,120	16,400	1.08
<u>Total Owners**</u>	59,813	83,700	1.40	34,423	40,400	1.17	52,129	59,300	1.14
	North York			Kingston			Woodstock		
	Assess.	Census	Ratio*	Assess.	Census	Ratio*	Assess.	Census	Ratio*
<u>Young Owner-Occupants, Less Than 35 Years</u>									
Singles	302	700	2.32	41	100	2.44	60	100	1.67
Couples	1,898	2,400	1.26	169	300	1.78	243	200	0.82
Families (with children)	3,428	6,500	1.90	372	700	1.88	567	1,000	1.76
<u>Single-Parent Owner Families</u>	273	5,300	19.41	53	600	11.32	49	300	6.12
<u>Middle-Aged Owner-Occupants</u>									
Singles & Couples (35-54 Years no children)	3,553	5,000	1.41	526	700	1.33	313	400	1.28
Families (with children)									
35-54 Years	32,434	33,600	1.04	1,953	2,100	1.08	1,794	1,700	0.95
55+ Years	16,755	11,100	0.66	992	800	0.81	660	400	0.61
<u>Empty-Nester Owners 55+ Years</u>									
Singles and Couples no children	16,237	18,600	1.15	2,494	2,800	1.12	1,812	1,900	1.05
<u>Total Owners**</u>	74,880	83,200	1.11	6,600	8,100	1.23	5,498	6,000	1.09

\* Ratio of Census dwelling unit data to assessment property data for each of the owner groups.

\*\* Does not include absentee landlords (for assessment or Census data) or multiple family owners (for Census data).

Source: Special tabulations from Ministry of Revenue property assessment files (with adjustments by Clayton Research Associates and special tabulations) from the 1981 Census of Canada.



TABLE 9  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF TORONTO, 1981 (000'S OF DWELLING UNITS)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)								Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+	Total**	
<u>Young Owner-Occupants, Less Than 35 Years</u>									
Singles	0.0	0.1	0.5	0.5	1.3	0.3	0.1	2.8	1,138
Couples	0.0	0.5	2.5	0.7	0.2	0.0	0.0	4.0	644
Families (with children)	1.5	4.7	0.7	0.1	0.0	0.0	0.0	7.1	360
<u>Single-Parent Owner Families</u>	0.2	3.2	2.6	0.8	0.2	0.0	0.0	7.0	509
<u>Middle-Aged Owner-Occupants</u>									
Singles & Couples (35-54 Years no children)	0.0	0.8	3.0	1.5	1.7	0.4	0.2	7.6	754
Families (with children)									
35-54 Years	5.5	14.0	3.6	0.8	0.3	0.0	0.0	24.2	367
55+ Years	1.2	5.3	1.5	0.3	0.2	0.0	0.0	8.5	395
<u>Empty-Nester Owners 55+ Years</u>									
Singles and Couples no children	0.1	2.3	8.6	3.9	5.7	1.4	0.6	22.5	769
<u>Total Owners</u>	8.5	30.9	23.0	8.6	9.6	2.1	0.9	83.7	508

\* Includes all owner-occupied single-detached, semi-detached and row dwellings except those occupied by multiple-family households.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.

TABLE 10  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF NORTH YORK, 1981 (000'S OF DWELLING UNITS)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)								Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+	Total**	
<u>Young Owner-Occupants, Less Than 35 Years</u>									
Singles	0.0	0.0	0.1	0.1	0.3	0.1	0.0	0.7	1,123
Couples	0.0	0.4	1.4	0.4	0.2	0.0	0.0	2.4	646
Families (with children)	0.9	4.1	1.2	0.3	0.0	0.0	0.0	6.5	397
<u>Single-Parent Owner Families</u>	0.1	2.2	2.2	0.6	0.2	0.0	0.0	5.3	540
<u>Middle-Aged Owner-Occupants</u>									
Singles & Couples (35-54 Years no children)	0.0	0.6	2.5	0.9	0.8	0.2	0.1	5.0	695
Families (with children)									
35-54 Years	5.7	21.8	5.0	0.9	0.2	0.0	0.0	33.6	377
55+ Years	1.3	7.5	1.8	0.4	0.1	0.0	0.0	11.1	394
<u>Empty-Nester Owners 55+ Years</u>									
Singles and Couples no children	0.0	2.7	8.9	3.4	2.9	0.5	0.2	18.6	685
<u>Total Owners</u>	8.0	39.3	23.1	7.0	4.7	0.8	0.3	83.2	449

\* Includes all owner-occupied single-detached, semi-detached and row dwellings except those occupied by multiple-family households.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.

TABLE 11  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF HAMILTON, 1981 (000'S OF DWELLING UNITS)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Total**	Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+		
<u>Young Owner-Occupants, Less Than 35 Years</u>									
Singles	0.0	0.0	0.2	0.2	0.3	0.1	0.0	0.8	968
Couples	0.0	0.7	1.6	0.2	0.1	0.0	0.0	2.6	597
Families (with children)	1.9	5.4	0.4	0.1	0.0	0.0	0.0	7.7	340
<u>Single-Parent Owner Families</u>	0.4	2.1	1.1	0.2	0.0	0.0	0.0	3.8	431
<u>Middle-Aged Owner-Occupants</u>									
Singles & Couples (35-54 Years no children)	0.0	0.9	1.9	0.5	0.5	0.1	0.0	3.9	640
Families (with children)									
35-54 Years	6.1	11.1	0.9	0.1	0.0	0.0	0.0	18.2	317
55+ Years	1.1	4.2	0.6	0.1	0.0	0.0	0.0	5.9	362
<u>Empty-Nester Owners 55+ Years</u>									
Singles and Couples no children	0.0	3.8	7.0	2.3	2.7	0.5	0.1	16.4	657
<u>Total Owners</u>	9.5	28.2	13.7	3.7	3.6	0.7	0.1	59.3	425

\* Includes all owner-occupied single-detached, semi-detached and row dwellings except those occupied by multiple-family households.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.

TABLE 12  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF OTTAWA, 1981 (000'S OF DWELLING UNITS)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Total**	Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+		
<u>Young Owner-Occupants, Less Than 35 Years</u>									
Singles	0.0	0.0	0.1	0.1	0.4	0.1	0.0	0.7	1,161
Couples	0.0	0.2	1.2	0.3	0.1	0.0	0.0	1.7	646
Families (with children)	0.4	2.5	0.4	0.0	0.0	0.0	0.0	3.3	381
<u>Single-Parent Owner Families</u>	0.1	1.4	1.3	0.3	0.1	0.0	0.0	3.1	518
<u>Middle-Aged Owner-Occupants</u>									
Singles & Couples (35-54 Years no children)	0.0	0.2	1.6	0.6	0.7	0.1	0.0	3.2	724
Families (with children)									
35-54 Years	2.1	8.5	1.6	0.2	0.0	0.0	0.0	12.4	371
55+ Years	0.4	3.3	0.8	0.1	0.0	0.0	0.0	4.7	396
<u>Empty-Nester Owners 55+ Years</u>									
Singles and Couples no children	0.0	0.9	5.7	2.0	2.2	0.4	0.1	11.3	708
<u>Total Owners</u>	3.0	17.0	12.7	3.6	3.5	0.6	0.1	40.4	494

\* Includes all owner-occupied single-detached, semi-detached and row dwellings except those occupied by multiple-family households.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.

TABLE 13  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF KINGSTON, 1981 (000'S OF DWELLING UNITS)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+ Total**	
<u>Young Owner-Occupants, Less Than 35 Years</u>								
Singles	0.0	0.0	0.0	0.0	0.1	0.0	0.1	1,060
Couples	0.0	0.0	0.1	0.2	0.0	0.0	0.3	845
Families (with children)	0.2	0.5	0.0	0.0	0.0	0.0	0.7	344
<u>Single-Parent Owner Families</u>	0.1	0.4	0.1	0.0	0.0	0.0	0.6	426
<u>Middle-Aged Owner-Occupants</u>								
Singles & Couples (35-54 Years no children)	0.0	0.1	0.3	0.1	0.1	0.0	0.7	675
Families (with children)								
35-54 Years	0.6	1.3	0.2	0.0	0.0	0.0	2.1	347
55+ Years	0.1	0.5	0.1	0.0	0.0	0.0	0.8	382
<u>Empty-Nester Owners 55+ Years</u>								
Singles and Couples no children	0.0	0.6	1.1	0.5	0.5	0.1	2.8	679
<u>Total Owners</u>	1.0	3.4	1.9	0.8	0.7	0.1	8.1	479

\* Includes all owner-occupied single-detached, semi-detached and row dwellings except those occupied by multiple-family households.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.

TABLE 14  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
CITY OF WOODSTOCK, 1981 (000'S OF DWELLING UNITS)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+ Total**	
<u>Young Owner-Occupants, Less Than 35 Years</u>								
Singles	0.0	0.0	0.0	0.0	0.1	0.0	0.1	950
Couples	0.0	0.1	0.1	0.0	0.0	0.0	0.2	565
Families (with children)	0.2	0.7	0.1	0.0	0.0	0.0	1.0	343
<u>Single-Parent Owner Families</u>	0.0	0.2	0.1	0.0	0.0	0.0	0.3	413
<u>Middle-Aged Owner-Occupants</u>								
Singles & Couples (35-54 Years no children)	0.0	0.1	0.2	0.1	0.0	0.0	0.4	637
Families (with children)								
35-54 Years	0.6	1.0	0.1	0.0	0.0	0.0	1.7	319
55+ Years	0.1	0.3	0.0	0.0	0.0	0.0	0.4	365
<u>Empty-Nester Owners 55+ Years</u>								
Singles and Couples no children	0.0	0.5	0.7	0.3	0.3	0.1	1.9	660
<u>Total Owners</u>	0.9	2.9	1.3	0.4	0.4	0.1	6.0	433

\* Includes all owner-occupied single-detached, semi-detached and row dwellings except those occupied by multiple-family households.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.

TABLE 15  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
URBAN ONTARIO, 1981 (000'S OF DWELLING UNITS)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Total**	Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+		
Young Owner-Occupants, Less Than 35 Years									
Singles	0.0	0.7	3.5	3.4	8.4	1.7	0.6	18.2	1,095
Couples	0.1	9.9	35.0	8.6	2.8	0.3	0.1	56.7	631
Families (with children)	31.0	110.1	17.4	3.1	0.5	0.0	0.0	162.2	364
Single-Parent Owner Families	3.4	36.3	27.1	6.3	2.0	0.2	0.0	75.2	486
Middle-Aged Owner-Occupants									
Singles & Couples (35-54 Years no children)	0.1	10.7	37.6	14.5	15.3	3.3	1.4	82.8	704
Families (with children)									
35-54 Years	94.5	264.5	51.5	8.9	2.1	0.4	0.0	421.8	360
55+ Years	13.7	70.4	16.1	3.3	1.1	0.1	0.1	104.8	387
Empty-Nester Owners 55+ Years									
Singles and Couples no children	0.3	41.0	119.8	45.7	52.0	10.7	4.1	273.5	699
Total Owners	143.1	543.6	308.0	93.8	84.2	16.7	6.3	1,195.3	463

\* Includes all owner-occupied single-detached, semi-detached and row dwellings except those occupied by multiple-family households.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.

TABLE 16  
UTILIZATION OF OWNER-OCCUPIED GRADE-RELATED HOUSING STOCK BY OWNER CHARACTERISTICS  
ONTARIO, 1981 (000'S OF DWELLING UNITS)\*

	Gross Floor Area/Person Ratio (Square Feet/Person)							Total**	Median Square Feet/ Person
	-249	250- 499	500- 749	750- 999	1,000- 1,499	1,500- 1,999	2,000+		
Young Owner-Occupants, Less Than 35 Years									
Singles	0.0	0.9	4.8	4.7	11.6	2.4	0.8	25.3	1,095
Couples	0.1	13.7	48.3	11.9	3.8	0.4	0.1	78.3	631
Families (with children)	46.5	165.2	26.0	4.6	0.7	0.0	0.0	243.2	364
Single-Parent Owner Families	4.6	49.6	37.1	8.6	2.7	0.2	0.0	102.7	486
Middle-Aged Owner-Occupants									
Singles & Couples (35-54 Years no children)	0.1	15.4	54.3	20.9	22.1	4.8	2.0	119.5	704
Families (with children)									
35-54 Years	131.2	367.2	71.5	12.3	2.9	0.6	0.0	585.7	360
55+ Years	19.1	98.0	22.5	4.5	1.5	0.1	0.1	145.9	387
Empty-Nester Owners 55+ Years									
Singles and Couples no children	0.4	64.2	187.3	71.4	81.3	16.7	6.4	427.7	699
Total Owners	202.0	774.2	451.8	138.9	126.6	25.2	9.4	1,728.3	463

\* Includes all owner-occupied single-detached, semi-detached and row dwellings except those occupied by multiple-family households.

\*\* Totals may not add due to rounding.

Source: Estimates by Clayton Research Associates based on special tabulations from the 1981 Census of Canada and the Ministry of Revenue property assessment files.



**APPENDIX B**

**TABLES - CAPACITY FOR ADDITIONAL BUILDING IN EXISTING GRADE-RELATED STOCK  
AND ON APARTMENT LAND**

City of Toronto

Source: City of Toronto Planning and Development Department adjusted



## DESCRIPTION

These tables are based on a series of special tabulations prepared by the City of Toronto Planning and Development Department from their special computerized land use files. The data represents estimates of the amount of additional building which would be permitted in the existing dwelling stock under the current zoning regulations assuming that such building could be undertaken without encroaching on side-yard, set-back or other requirements.

The data in Tables 1 and 2 have been adjusted to reflect the 1981 Census of Canada estimate of the grade-related stock for the City of Toronto. This figure is about 10 percent higher than the estimated by the City of Toronto Planning and Development Department which is based on properties, not dwellings units. The adjustment was performed in order to make the estimates for the grade-related stock comparable to those presented elsewhere in the study.

A brief description of how the data was compiled follows:

- . Table 1 presents estimates of the number of grade-related dwellings by type and zoning for which additional gross building area would be permitted under current zoning guidelines. These estimates are based on a calculation of the maximum gross floor area allowed for each lot under existing zoning:

- Z1: 0.35 times lot area;
- Z2: 0.6 times lot area;
- Z3: 1.0 times lot area;
- Z4: 2.0 times lot area; and
- Z5: 2.5 times lot area.

The existing gross floor area for each unit was subtracted from the calculated maximum allowed in order to arrive at the additional available building area for each unit.

- . Table 2 presents similar information except that, in this case, the lot area covered by the dwelling is subtracted from the maximum lot area available to be built upon for each dwelling according to existing zoning. The minimum landscaped open space for each category is:

- Z1 to Z3: 30% of lot area;
- Z4 to Z5: 35% of lot area.

- . Table 3 presents information on the number of apartment structure, which have excess lot area available to be built upon. The calculation was done in the same way as for the grade-related stock (Table 2). The figures for apartment structures in Table 3 cover only 75 percent of the stock of apartment buildings.

TABLE 1  
GRADE-RELATED DWELLINGS WHERE CURRENT ZONING WOULD PERMIT ADDITIONAL BUILDING AREA  
CITY OF TORONTO, 1982 (PROPERTIES)

Dwelling Type and Additional Building Area (Square Feet)	R1				R1A & R1F				R2, R3, R4 & R4A					Other	Total Stock
	Z1	Z2	Z3&Z4	Total	Z2	Z3	Z1&Z4	Total	Z1	Z2	Z3	Z4	Total		
Single-Detached															
0 or less	2,852	686	0	3,538	192	2	0	194	0	5,407	274	0	5,681	783	10,196
1-299	1,115	653	0	1,768	419	1	0	420	0	6,199	301	0	6,491	0	8,679
300-599	806	1,161	0	1,967	364	2	0	366	0	6,287	405	0	6,692	0	9,025
600-899	558	1,459	0	2,017	550	2	0	552	0	4,597	470	0	5,067	0	7,636
900-1,199	368	1,078	0	1,446	343	5	0	348	0	3,123	477	1	3,601	0	5,395
1,200-1,499	232	670	0	902	224	8	0	233	0	1,375	427	3	1,805	0	2,939
1,500-1,799	160	412	0	572	220	6	0	227	0	674	338	1	1,013	0	1,812
1,800-2,099	96	244	0	340	141	11	0	152	0	353	265	0	618	0	1,110
2,100+	338	537	0	875	330	23	0	353	0	642	860	223	1,725	0	2,953
Total	6,525	6,900	0	13,425	2,783	61	0	2,844	0	28,648	3,817	228	32,693	783	49,745
Semi-Detached															
0 or less	94	116	0	209	210	2	0	254	0	17,938	1,526	2	19,466	1,877	21,807
1-299	8	82	0	90	338	2	0	341	0	11,602	1,691	1	13,294	0	13,724
300-599	2	36	0	38	234	9	0	243	0	4,086	2,063	1	6,150	0	6,431
600-899	0	29	0	29	121	11	0	132	0	1,606	1,511	5	3,122	0	3,283
900-1,199	1	11	0	12	43	16	0	59	0	576	1,091	2	1,669	0	1,741
1,200-1,499	0	10	0	10	32	3	0	35	0	234	573	3	810	0	855
1,500-1,799	1	3	0	4	16	7	0	23	0	68	329	4	401	0	428
1,800-2,099	0	5	0	5	9	2	0	11	0	32	160	12	204	0	220
2,100+	1	9	0	10	12	6	0	18	0	48	228	148	424	0	452
Total	107	301	0	408	1,057	58	0	1,115	0	36,190	9,172	178	45,540	1,877	48,940
Row															
0 or less	1	10	0	11	19	0	0	19	5	3,791	2,127	0	5,923	1,019	6,972
1-299	0	1	0	1	9	0	0	9	0	1,327	1,416	0	2,743	0	2,753
300-599	0	1	0	1	13	0	0	13	0	229	1,066	0	1,295	0	1,309
600-899	0	0	0	0	5	3	0	8	0	52	923	2	977	0	985
900-1,199	0	0	0	0	3	0	0	3	0	10	369	3	382	0	385
1,200-1,499	0	0	0	0	0	0	0	0	0	8	147	18	173	0	173
1,500-1,799	0	0	0	0	2	0	0	2	0	1	80	5	86	0	88
1,800-2,099	0	0	0	0	0	0	0	0	0	4	37	3	45	0	45
2,100+	0	1	0	1	6	0	0	6	0	10	83	10	103	0	110
Total	1	13	0	14	57	3	0	60	5	5,432	6,248	42	11,727	1,019	12,820
Total Single-Detached, Semi-Detached and Row															
0 or less	2,947	812	0	3,759	463	4	0	467	5	27,136	3,927	2	31,070	3,679	38,975
1-299	1,123	736	0	1,859	766	3	0	769	0	19,119	3,408	1	22,528	0	25,156
300-599	808	1,198	0	2,006	611	11	0	622	0	10,602	3,534	1	14,137	0	16,765
600-899	558	1,488	0	2,046	676	16	0	692	0	6,255	2,904	7	9,166	0	11,904
900-1,199	369	1,089	0	1,458	389	21	0	410	0	3,709	1,937	6	5,652	0	7,520
1,200-1,499	232	680	0	912	256	11	0	267	0	1,617	1,147	24	2,788	0	3,967
1,500-1,799	161	415	0	576	238	14	0	252	0	743	747	10	1,500	0	2,328
1,800-2,099	96	249	0	345	150	13	0	163	0	389	462	16	867	0	1,375
2,100+	339	547	0	886	348	29	0	377	0	700	1,171	381	2,252	0	3,515
Total	6,633	7,214	0	13,847	3,897	122	0	4,019	5	70,270	19,237	448	89,960	3,679	111,505

Source: Estimates by Clayton Research Associates based on special tabulations from the City of Toronto Planning and Development Department and the 1981 Census of Canada.



TABLE 2  
GRADE-RELATED DWELLINGS WHERE CURRENT ZONING WOULD PERMIT ADDITIONAL LOT AREA TO BE BUILT UPON  
CITY OF TORONTO, 1981 (DWELLING UNITS)

Dwelling Type and Available Lot Area (Square Feet)	R1				R1A & R1F				R2, R3, R4 & R4A					Other	Total Stock
	Z1	Z2	Z3&Z4	Total	Z2	Z3	Z1&Z4	Total	Z1	Z2	Z3	Z4	Total		
<b>Single-Detached</b>															
0 or less	269	687	0	956	276	14	0	290	0	5,281	1,593	19	6,893	783	8,922
1-299	861	1,872	0	2,733	890	25	0	915	0	14,609	1,355	80	16,044	0	19,692
300-599	1,330	2,232	0	3,562	819	10	0	829	0	6,522	538	76	7,136	0	11,527
600-899	1,147	1,171	0	2,318	386	6	0	392	0	1,375	196	22	1,593	0	4,303
900-1,199	975	444	0	1,419	203	2	0	205	0	468	71	17	556	0	2,180
1,200-1,499	698	183	0	881	103	2	0	105	0	191	23	5	219	0	1,205
1,500-1,799	435	95	0	530	43	0	0	43	0	91	16	5	112	0	685
1,800-2,099	205	44	0	249	18	0	0	18	0	48	4	1	53	0	320
2,100+	605	172	0	777	45	2	0	47	0	63	21	3	87	0	911
<b>Total</b>	<b>6,525</b>	<b>6,900</b>	<b>0</b>	<b>13,425</b>	<b>2,783</b>	<b>61</b>	<b>0</b>	<b>2,844</b>	<b>0</b>	<b>28,648</b>	<b>3,817</b>	<b>228</b>	<b>32,693</b>	<b>783</b>	<b>49,745</b>
<b>Semi-Detached</b>															
0 or less	23	72	0	95	226	28	0	254	0	16,358	6,549	45	22,952	1,877	25,178
1-299	52	142	0	194	568	26	0	594	0	17,232	2,278	102	19,612	0	20,400
300-599	22	53	0	75	191	3	0	194	0	2,218	284	26	2,528	0	2,797
600-899	6	21	0	27	51	1	0	52	0	309	41	2	352	0	431
900-1,199	1	3	0	4	13	0	0	13	0	43	9	0	52	0	69
1,200-1,499	0	3	0	3	7	0	0	7	0	11	5	1	17	0	27
1,500-1,799	1	1	0	2	1	0	0	1	0	7	0	1	8	0	11
1,800-2,099	1	2	0	3	0	0	0	0	0	2	0	0	2	0	5
2,100+	1	4	0	5	0	0	0	0	0	10	6	1	17	0	22
<b>Total</b>	<b>107</b>	<b>301</b>	<b>0</b>	<b>408</b>	<b>1,057</b>	<b>58</b>	<b>0</b>	<b>1,115</b>	<b>0</b>	<b>36,190</b>	<b>9,172</b>	<b>178</b>	<b>45,540</b>	<b>1,877</b>	<b>48,940</b>
<b>Row</b>															
0 or less	0	8	0	8	18	3	0	21	5	3,678	5,383	37	9,103	1,019	10,151
1-299	0	2	0	2	22	0	0	22	0	1,667	818	1	2,486	0	2,510
300-599	0	2	0	2	9	0	0	9	0	64	33	0	97	0	108
600-899	0	0	0	0	1	0	0	1	0	8	3	0	11	0	12
900-1,199	0	0	0	0	2	0	0	2	0	3	2	0	5	0	7
1,200-1,499	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2
1,500-1,799	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2
1,800-2,099	0	0	0	0	0	0	0	0	0	2	1	0	3	0	3
2,100+	1	1	0	2	4	0	0	4	0	10	5	4	19	0	25
<b>Total</b>	<b>1</b>	<b>13</b>	<b>0</b>	<b>14</b>	<b>57</b>	<b>3</b>	<b>0</b>	<b>60</b>	<b>5</b>	<b>5,432</b>	<b>6,248</b>	<b>42</b>	<b>11,727</b>	<b>1,019</b>	<b>12,820</b>
<b>Total Single-Detached, Semi-Detached and Row</b>															
0 or less	292	767	0	1,059	520	45	0	565	5	25,317	13,525	101	38,948	3,679	44,251
1-299	913	2,016	0	2,929	1,480	51	0	1,531	0	33,508	4,451	183	38,142	0	42,602
300-599	1,352	2,287	0	3,639	1,019	13	0	1,032	0	8,804	855	102	9,761	0	14,432
600-899	1,153	1,192	0	2,345	438	7	0	445	0	1,692	240	24	1,956	0	4,746
900-1,199	976	447	0	1,423	218	2	0	220	0	514	82	17	613	0	2,256
1,200-1,499	698	186	0	884	110	2	0	112	0	202	30	6	238	0	1,234
1,500-1,799	436	96	0	532	45	0	0	45	0	98	17	6	121	0	698
1,800-2,099	206	46	0	252	18	0	0	18	0	52	5	1	58	0	328
2,100+	607	177	0	784	49	2	0	51	0	83	32	8	123	0	958
<b>Total</b>	<b>6,633</b>	<b>7,214</b>	<b>0</b>	<b>13,847</b>	<b>3,897</b>	<b>122</b>	<b>0</b>	<b>4,019</b>	<b>5</b>	<b>70,270</b>	<b>19,237</b>	<b>448</b>	<b>89,960</b>	<b>3,679</b>	<b>111,505</b>

Source: Estimates by Clayton Research Associates based on special tabulations from the City of Toronto Planning and Development Department and the 1981 Census of Canada.

TABLE 3  
APARTMENT PROPERTIES WHERE CURRENT ZONING WOULD PERMIT  
ADDITIONAL LOT AREA TO BE BUILT UPON, CITY OF TORONTO, 1982\*

Available Lot Area (Square Feet)	Z1, Z2 & Z3 Minimum Landscaped Open Space-30 Percent Of Lot Area	Z4 & Z5 Minimum Landscaped Open Space-35 Percent Of Lot Area	Total	Percent
0 or Less	489	228	717	66.0
1-999	64	31	95	8.7
1,000-1,999	33	23	56	5.2
2,000-2,999	17	19	36	3.3
3,000-3,999	10	10	20	1.8
4,000-4,999	10	5	15	1.4
5,000-5,999	3	5	8	0.7
6,000-6,999	7	8	15	1.4
7,000-7,999	2	11	13	1.2
8,000-8,999	5	0	5	0.5
9,000-9,999	3	6	9	0.8
10,000-14,999	44	34	78	7.2
15,000-29,999	0	0	0	0.0
30,000+	14	6	20	1.8
Total	701	386	1,087	100.0

\* This tabulation covers only 1,087 structures out of a total stock of 1,445 apartment structures; of the remainder, 38 structures had incomplete information and the remainder had commercial zoning for which the calculation for the tabulation could not be readily completed.

Source: Special tabulations prepared by City of Toronto Planning and Development Department.











